Amendments To The Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit,

wherein when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

2. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for

requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application,

wherein when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

3. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines whether there is a communication application that requires real-time processing;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station; and

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station,

wherein when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls

the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

4. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application;

the PS-Poll transmission timing changer determines whether there is a communication application that requires real-time processing;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station; and

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station,

wherein when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

5. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines whether there is a communication application that requires real-time processing;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station;

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station; and

the communication control section repeatedly receives the packets until no buffered packet remains in the radio base station by the PS-Poll, and turns off the power of the radio interface section when there is no buffered packet left,

when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

6. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application;

the PS-Poll transmission timing changer determines whether there is a communication application that requires real-time processing;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station;

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries

out intermittent receiving operation based on beacons transmitted from the radio base station; and

the communication control section repeatedly receives the packets until no buffered packet remains in the radio base station by the PS-Poll, and turns off the power of the radio interface section when there is no buffered packet left,

wherein when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

7. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines whether there is a communication application that requires real-time processing based on information as to whether real-time processing is necessary or unnecessary attached to the data of each communication application;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station; and

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station,

wherein when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

8. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for

requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application;

the PS-Poll transmission timing changer determines whether there is a communication application that requires real-time processing based on information as to whether real-time processing is necessary or unnecessary attached to the data of each communication application;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station; and

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries

out intermittent receiving operation based on beacons transmitted from the radio base station,

wherein when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

9. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines whether there is a communication application that requires real-time processing based on information as to whether real-time processing is necessary or unnecessary attached to the data of each communication application;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station;

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station; and

the communication control section repeatedly receives the packets until no buffered packet remains in the radio base station by the PS-Poll, and turns off the power of the radio interface section when there is no buffered packet left,

wherein when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

10. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for

requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application;

the PS-Poll transmission timing changer determines whether there is a communication application that requires real-time processing based on information as to whether real-time processing is necessary or unnecessary attached to the data of each communication application;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station;

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries

out intermittent receiving operation based on beacons transmitted from the radio base station; and

the communication control section repeatedly receives the packets until no buffered packet remains in the radio base station by the PS-Poll, and turns off the power of the radio interface section when there is no buffered packet left,

wherein when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

11. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer detects a changeover in the communication applications, and determines whether there is a communication application that requires real-time processing each time the changeover is carried out;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station; [[and]]

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station, and

when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

12. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for

requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application;

the PS-Poll transmission timing changer detects a changeover in the communication applications, and determines whether there is a communication application that requires real-time processing each time the changeover is carried out;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station; [[and]]

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries

out intermittent receiving operation based on beacons transmitted from the radio base station, and

when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

13. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer detects a changeover in the communication applications, and determines whether there is a communication application that requires real-time processing each time the changeover is carried out;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station;

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station; [[and]]

the communication control section repeatedly receives the packets until no buffered packet remains in the radio base station by the PS-Poll, and turns off the power of the radio interface section when there is no buffered packet left, and

when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

14. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for

requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application;

the PS-Poll transmission timing changer detects a changeover in the communication applications, and determines whether there is a communication application that requires real-time processing each time the changeover is carried out;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station;

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries

out intermittent receiving operation based on beacons transmitted from the radio base station; [[and]]

the communication control section repeatedly receives the packets until no buffered packet remains in the radio base station by the PS-Poll, and turns off the power of the radio interface section when there is no buffered packet left, and

when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

15. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer detects a changeover in the communication applications, and determines whether there is a communication application that requires real-time processing based on information as to whether real-time processing is necessary or unnecessary attached to the data of each communication application every time the changeover is carried out;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station; [[and]]

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station, and

when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

16. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application;

the PS-Poll transmission timing changer detects a changeover in the communication applications, and determines whether there is a communication application that requires real-time processing based on information as to whether real-time processing is necessary or unnecessary attached to the data of each communication application every time the changeover is carried out;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and

transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station; [[and]]

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station, and

when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

17. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer detects a changeover in the communication applications, and determines whether there is a communication application that requires real-time processing based on information as to whether real-time processing is necessary or unnecessary attached to the data of each communication application every time the changeover is carried out;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station;

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station; [[and]]

the communication control section repeatedly receives the packets until no buffered packet remains in the radio base station by the PS-Poll, and turns off the power of the radio interface section when there is no buffered packet left, and

when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at

least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

18. (currently amended) A radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising:

a communication control section;

a radio interface section; and

a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein:

the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application;

the PS-Poll transmission timing changer detects a changeover in the communication applications, and determines whether there is a communication application that requires real-time processing based on information as to whether real-time processing is necessary or unnecessary attached to the data of each communication application every time the changeover is carried out;

when there is at least one communication application that requires real-time processing, the communication control section turns on the power of the radio interface section and transmits the PS-Poll to the radio base station so as to receive packets buffered by the radio base station;

when there is no communication application that requires real-time processing, the communication control section turns off the power of the radio interface section, and carries out intermittent receiving operation based on beacons transmitted from the radio base station; [[and]]

the communication control section repeatedly receives the packets until no buffered packet remains in the radio base station by the PS-Poll, and turns off the power of the radio interface section when there is no buffered packet left, and

when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval.

19-26. (canceled)

27. (currently amended) The radio terminal unit claimed in claim 11, further comprising a parameter determination section

for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section according to the power-saving rate and/or the priority determined by the parameter determination section.

28. (currently amended) The radio terminal unit claimed in claim 12, further comprising a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing,~~

~~to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section according to the power-saving rate and/or the priority determined by the parameter determination section.

29. (currently amended) The radio terminal unit claimed in claim 13, further comprising a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section according to

the power-saving rate and/or the priority determined by the parameter determination section.

30. (currently amended) The radio terminal unit claimed in claim 14, further comprising a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section according to the power-saving rate and/or the priority determined by the parameter determination section.

31. (currently amended) The radio terminal unit claimed in claim 15, further comprising a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving

rates and/or the priorities which have been set for the respective communication applications in advance, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section according to the power-saving rate and/or the priority determined by the parameter determination section.

32. (currently amended) The radio terminal unit claimed in claim 16, further comprising a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time~~

~~processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section according to the power-saving rate and/or the priority determined by the parameter determination section.

33. (currently amended) The radio terminal unit claimed in claim 17, further comprising a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section according to the power-saving rate and/or the priority determined by the parameter determination section.

34. (currently amended) The radio terminal unit claimed in claim 18, further comprising a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section according to the power-saving rate and/or the priority determined by the parameter determination section.

35. (currently amended) The radio terminal unit claimed in claim [[11]] 27, further comprising: ~~a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance; and~~

a battery charge detector for detecting the remaining amount of battery charge, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section ~~according to the power-saving rate and/or the priority determined by the parameter determination section~~ based on the remaining amount of battery charge detected by the battery charge detector.

36. (currently amended) The radio terminal unit claimed in claim [[12]] 28, further comprising:

~~a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance; and~~

a battery charge detector for detecting the remaining amount of battery charge, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section ~~according to the power-saving rate and/or the priority determined by the parameter determination section~~ based on the remaining amount of battery charge detected by the battery charge detector.

37. (currently amended) The radio terminal unit claimed in claim [[13]] 29, further comprising:

~~a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance; and~~

a battery charge detector for detecting the remaining amount of battery charge, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing,~~

~~to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section ~~according to the power-saving rate and/or the priority determined by the parameter determination section~~ based on the remaining amount of battery charge detected by the battery charge detector.

38. (currently amended) The radio terminal unit claimed in claim [[14]] 30, further comprising:

~~a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance; and~~

a battery charge detector for detecting the remaining amount of battery charge, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio~~

~~interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section ~~according to the power-saving rate and/or the priority determined by the parameter determination section~~ based on the remaining amount of battery charge detected by the battery charge detector.

39. (currently amended) The radio terminal unit claimed in claim [[15]] 31, further comprising:

~~a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance; and~~

a battery charge detector for detecting the remaining amount of battery charge, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section ~~according to the power-saving rate and/or the priority determined by the parameter determination section~~ based on the remaining amount of battery charge detected by the battery charge detector.

40. (currently amended) The radio terminal unit claimed in claim [[16]] 32, further comprising:

~~a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance; and~~

a battery charge detector for detecting the remaining amount of battery charge, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section ~~according to the power-saving rate and/or the priority determined by the~~

~~parameter determination section~~ based on the remaining amount of battery charge detected by the battery charge detector.

41. (currently amended) The radio terminal unit claimed in claim [[17]] 33, further comprising:

~~a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance; and~~

a battery charge detector for detecting the remaining amount of battery charge, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section ~~according to the power-saving rate and/or the priority determined by the parameter determination section~~ based on the remaining amount of battery charge detected by the battery charge detector.

42. (currently amended) The radio terminal unit claimed in claim [[18]] 34, further comprising:

~~a parameter determination section for determining the power-saving rate of the radio terminal unit and/or the priority of communication based on the power-saving rates and/or the priorities which have been set for the respective communication applications in advance; and~~

a battery charge detector for detecting the remaining amount of battery charge, wherein[[:]]

~~when the PS-Poll transmission timing changer detects a transition from a real-time processing unnecessary state, in which no communication application requires real-time processing, to a real-time processing necessary state, in which there is at least one communication application that requires real-time processing, the communication control section controls the radio interface section to transmit the PS-Poll using a timer value unrelated to a beacon interval; and~~

the communication control section changes the timer value for controlling the radio interface section ~~according to the power-saving rate and/or the priority determined by the parameter determination section~~ based on the remaining amount of battery charge detected by the battery charge detector.

43. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 1.

44. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 2.

45. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 3.

46. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 4.

47. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 5.

48. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 6.

49. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 7.

50. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 8.

51. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 9.

52. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 10.

53. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 11.

54. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 12.

55. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 13.

56. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 14.

57. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 15.

58. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 16.

59. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 17.

60. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 18.

61-68. (canceled)

69. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 27.

70. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 28.

71. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 29.

72. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 30.

73. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 31.

74. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 32.

75. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 33.

76. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 34.

77. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 35.

78. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 36.

79. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 37.

80. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 38.

81. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 39.

82. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 40.

83. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 41.

84. (original) A radio communication system which is a radio network system, comprising:

one or more radio base stations; and

one or more radio terminal units claimed in claim 42.

85. (canceled)